

The present invention relates to a problem that occurs in connection with call forwarding when a subscriber has several different services available, e.g., voice calls, data calls and facsimile data calls. In such a situation it is important to ensure that an incoming call is routed to a forwarding number which is capable of handling that kind of call. This means that voice calls should be routed to a forwarding number where the subscriber can receive the voice call and, similarly, facsimile data calls should be routed to a forwarding number providing facsimile data service for the subscriber. It is also important that incoming calls are routed using such connections or lines that are best suited for the type of calls.

An exchange implementing call routing may have several available optional lines that could be used to route the call to the forwarding number. These lines may have different properties. However, a data call should be routed via a line that offers a high quality and/or capacity. On the other hand, it is usually cheaper to route a voice call via a line that offers a lower quality and/or capacity, as the quality/capacity in this case is sufficient for a voice call (but not for a data call).

The independent claims 1, 2, 4, 5, 7 and 11 recite an invention that provide a solution that makes it possible to ensure that an incoming call is routed to a suitable forwarding number by using several suitable lines. This is, according to the independent claims, achieved with a solution wherein a subscriber database, in response to a subscriber data request, transmits a response message to the exchange which carries out the routing of the call. This response message includes a forwarding number and a basic service code. The routing exchange selects a suitable line among several alternative lines based on the basic service code to implement the call routing.

To the contrary, Joong merely teaches a system and method for routing different call types to forwarding numbers capable of handling such call types on a single line. Joong fails to disclose, teach or suggest call routing by selecting a suitable line among several alternative lines based on the basic service code, as recited in independent claims 1, 4, 5, 7 and 11. In

fact, Joong fails to even suggest that alternative lines might exist that could be used in the call routing to the forwarding number (see Fig. 1 of Joong in which no alternative lines are provided).

Although Joong appears to teach the use of several different service codes for analog speech, digital speech, asynchronous data and G3 fax, Joong merely teaches that these service codes are used to ensure that a specific call is routed to a forwarding number capable of handling the call type. However, Joong does not disclose, teach or suggest call routing by selecting a suitable line among several alternative lines based on the service codes.

Furthermore, col. 8, lines 30-36 and 48-59 of Joong merely discloses that the serving mobile switching center (MSC) receives an expected service code, which indicates the type of service the serving MSC is capable of receiving or expects to receive, from the mobile station. This information is forwarded by the serving MSC to the HLR/SCP (Home Location Register/Service Control Point) so that the HLR/SCP can determine whether the call to be routed to the mobile station is of a type which the mobile station is capable of receiving. The HLR/SCP can provide the relevant transfer number to the MSC for routing the call to the transfer number along a single line. Thus, Joong discloses routing calls based on specific transfer numbers for each type of call and does not disclose, teach or suggest call routing by selecting a suitable line among several alternative lines based on the basic service code.

Moreover, col. 5, line 36 to col. 6, line 43 of Joong actually relate to different ways of identifying the type of call and transferring calls to a transfer number. For example, different transfer numbers are stored in the HLR/SCP for ADS/G3 fax calls such that an appropriate transfer number can be returned from the HLR/SCP to the O-MSC for such calls (see col. 5, lines 36-56). Additionally, the type of call can be identified by assigning different numbers, e.g., one number for voice calls and another number for data calls, to the called mobile station, depending on the type of call to be made (see col. 6, lines 10-20). Thus, Joong merely teaches a solution that makes it possible to ensure that an incoming call is routed to a

forwarding number capable of handling that call type and fails to teach or suggest implementing call routing to a forwarding number via one of several alternative lines according to the call type indicated by the basic service code.

Moreover, Joong also fails to teach or suggest a subscriber database transmitting, to a routing exchange, a response message, including both a forwarding number and a basic service code indicating the necessary properties of the line which should be selected in routing the call, as recited in independent claim 5. Joong actually teaches away from such a solution in col. 5, lines 57-58, which recites that it is necessary for the HLR/SCP to receive information about the call type. Thus, Joong fails to teach or suggest that the routing exchange receives a response message, including both a forwarding number and a basic service code indicating the necessary properties of the line which should be selected in routing the call, as recited in independent claim 5. Furthermore, one of ordinary skill in the art would have failed to recognize from Joong the importance of the routing exchange receiving information on the call type (the basic service code).

For the reasons set forth above, independent claims 1, 2, 4, 5, 7 and 11 and all the remaining claims dependent thereon (i.e., claims 3, 6,-10 and 12-14) are patentable over Joong. Accordingly, reconsideration and withdrawal of the rejection of claims 1-14 under 35 U.S.C. §102(b) is respectfully requested.

All rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

If any points remain in issue which may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Pillsbury Winthrop LLP

By: 

Christine H. McCarthy

Reg. No.: 41,844

Tel. No.: (703) 905-2143

Fax No.: (703) 905-2500

CHM/JMS
1600 Tysons Boulevard
McLean, VA 22102
(703) 905-2000